APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH IN AREAS UNDER NATIONAL JURISDICTION OF ICELAND

Date: 31.03.2025

1. General Information

1.1 **Ship and cruise number:** Jákup Sverri, Cruise 2528

1.2 **Sponsoring institution:**

Name:	Havstovan
Address:	Nóatún 1, FO-100 Tórshavn Faroe Islands
Name of director:	Marita Rasmussen

1.3 **Scientist in charge of project:**

Name:	Karin Margretha H. Larsen
Address:	Havstovan Nóatún 1 FO-100 Tórshavn Faroe Islands
Telephone:	+298 353900
Email:	karinl@hav.fo

1.4 **Scientist from Iceland with knowledge of the project:**

Name:	Andreas Macrander
Address:	Hafrannsóknarstofnun Fornubúðum 5 220 Hafnafjørður, Iceland

1.5 **Submitting officer:**

Name:	Karin Margretha H. Larsen
Address:	Havstovan Nóatún 1 FO-100 Tórshavn Faroe Islands
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2. Description of Project

2.1 Nature and objectives of the project:

The aim of the project is to:

- Deploy five oceanographic moorings along a transect running between 63°58,3N 013°31,8W and 63°55,3N 013°26,4W in Icelandic water. The purpose of the moorings is to observe Iceland-Faroe overflow water, that is known to flow along the slope at this location.
- Occupy CTD (Conductivity, Temperature, Depth) stations along the same transect.

The moorings and CTD observations are part of the EU project EPOC (https://epoc-eu.org/).

2.2 Relevant previous or future research cruises:

Cruise 2122 by R/V Jákup Sverri in May 2021. On this cruise CTD sections were occupied in the Western Valley and two ADCP moorings were recovered.

Cruise 2126 by R/V Jákup Sverri. On this cruise an ADCP frame was deployed in Icelandic waters on the central part of the Ridge.

Cruise 2218 by R/V Jákup Sverri in May 2022. On this cruise CTD sections were occupied on the Ridge and an ADCP frame was recovered.

Cruise 2222 by R/V Jákup Sverri. On this cruise an ADCP frame was deployed in Icelandic waters on the central part of the Ridge and CTD section were performed.

Cruise 2328 by R/V Jákup Sverri in June 2023. On this cruise CTD sections were occupied on the Ridge and an ADCP frame was recovered.

2.3 Previously published research data relating to the project:

Hansen, B., Larsen, K. M. H., Olsen, S. M., Quadfasel, D., Jochumsen, K., and Østerhus, S., 2018. Overflow of cold water across the Iceland–Faroe Ridge through the Western Valley, Ocean Sci., 14, 871–885, https://doi.org/10.5194/os-14-871-2018

Olsen, S.M., Hansen, B., Østerhus, S., Quadfasel, D., Valdimarsson, H., 2016. Biased thermohaline exchanges with the Arctic across the Iceland-Faroe Ridge in ocean climate models. Ocean Sci. 12, 545–560. doi:10.5194/os-12-545-2016

3. Methods and Means to be Used

3.1 Particulars of vessel:

Name: Jákup Sverri **Nationality:** Faroese
Owner: Føroya Landsstýri (The Local Faroese Government)
Operator: Havstovan
Overall length: 54.1 m **Maximum draught:** 6.4 m
Net tonnage: 600 t **Gross tonnage:** 1900 t
Propulsion: Diesel-electric
Cruising speed: 11 kn **Maximum speed:** 14 kn
Call sign: XPZO
Registered port and number: Tórshavn (cargovessel)
Method and capability of communication:
(Satellite) Phone no: +298 66 39 00
Email: jsbridge@hav.fo
MMSI no: 231 854 000
Name of master: Hans Edmund Olsen
Number of crew: 9-13
Number of scientists on board: 3-12

3.2 Aircraft or other craft to be used in the project: N/A

3.3 Particulars of methods and scientific instruments:

Types of samples and data	Methods to be used	Instruments to be used
Water	CTD + bottle sample	CTD + Rosette
Mooring deployments	Lander to be lowered towards the bottom. Moorings dropped at the surface	Oceano command unit

3.4 Indicate whether harmful substances will be used: NO

3.5 Indicate whether drilling will be carried out: NO

3.6 Indicate whether explosives will be used: NO

4. Installations and Equipment

Details of installations and equipment (dates of laying, servicing, recovery; exact locations and depth):

Five moorings will be deployed along the mooring section at these locations:

1. ADCP trawl-proof frame at position 63.9723°N 013.5303°W, depth 410 m.
   1.a Alternatively at 63.9692°N 013.5249°W, depth 500 m. depending on hydrography at location.
2. ADCP mooring at position 63.9652°N 013.5178°W, depth 600 m.
3. String mooring at position 63.9546°N 013.4990°W, depth 730 m.
4. String mooring at position 63.9390°N 013.4715°W, depth 790 m.
5. String mooring at position 63.9212°N 013.4402°W, depth 740 m.

The mooring locations are plotted on Chart 2 below and indicated with the numbers given here. The moorings are planned to be recovered in May 2026 by R/V Jákup Sverri.

5. Geographical Areas

5.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude):

CTD sections and moorings are within the area whose corners are located at:

(64°30'N, 014°00'W) and (63°00N, 010°00'W)

5.2 Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment.

Two charts are attached. Chart 1 shows the geographical area, where the survey takes place. Chart 2 shows the planned mooring locations on the south eastern Icelandic slope

6. Dates

6.1 Expected dates of first entry into and final departure from the research area of the research vessel:

Depending on the weather conditions, the ship will enter Icelandic waters, occupy CTD sections, recover the frame, and depart sometime in the period:

Entry: 04.06.2025
Exit: 11.06.2025

6.2 Indicate if multiple entry is expected:

No

7. Port Calls

7.1 Dates and names of intended ports of call in Iceland:

No intended port call

7.2 Any special logistical requirements at ports of call:

N/A

7.3 Name/address/telephone of shipping agent (if available):

N/A

8. Participation

8.1 Extent to which Iceland will be enabled to participate or to be represented in the research project:

Observer is welcome aboard.

Havstovan collaborates with Andreas Macrander and Solveig Rósa Ólafsdóttir (oceanographers at Hafrannsóknarstofnun) on Greenland-Scotland Ridge exchanges.

8.2 Proposed dates and ports for embarkation/disembarkation:

Tórshavn, Faroe Islands at beginning and end of cruise.

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to Iceland of preliminary reports which should include the expected dates of submission of the final results:

Six months from conclusion of cruise.

9.2 Proposed means for access by Iceland to data and samples:

By cruise report

9.3 Proposed means to provide Iceland with assessment of data, samples and research results or provide assistance in their assessment or interpretation:

By individual communication. Data will also be accessible on www.envofar.fo

9.4 Proposed means of making research results internationally available:

In scientific journals. Technical reports will be published on www.hav.fo.

10. Scientific Equipment

Coastal State Iceland

Port Call No *Indicate "Yes" or "No"*

Dates N/A

LIST SCIENTIFIC WORK BY FUNCTION eg: magnetometry, gravity, diving, seismics, bathymetry, sea bed sampling, trawling, echo sounding, water sampling, u/w TV, moored instruments, towed instruments	Water column inclu-ding sediment sampling of the sea bed	Fisheries research within fishing limits	Research concerning the natural resources of the Continental Shelf or its physical characteristics	Distance from coast within 12 nms	Distanc e from coast between 12-200 nm	(Continental Shelf work only) Beyond 200 nm but within the Continental margin
Mooring deployments	Yes	No	No	No	Yes	No
Water sampling	Yes	No	No	No	Yes	No

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Dated 31. March 2025

NB: IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES/AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED THE COASTAL STATE AUTHORITIES MUST BE NOTIFIED IMMEDIATELY

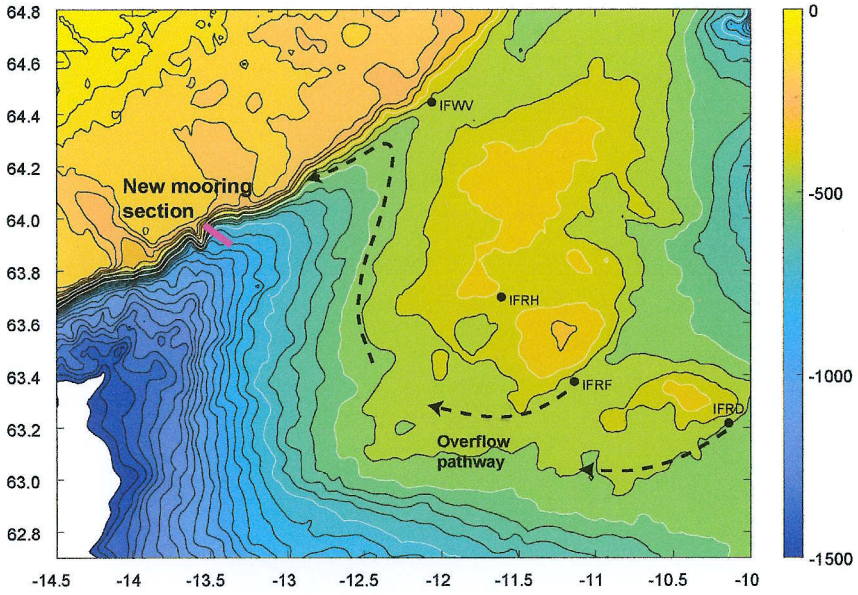

Chart 1, showing the location of the planned mooring section in Icelandic water (magenta line) and previous ADCP moorings in Icelandic and Faroese waters (black circles). CTD stations are planned in Icelandic waters along the new mooring section and across the overflow pathways at IFRF and IFRD on the Iceland-Faroe Ridge.

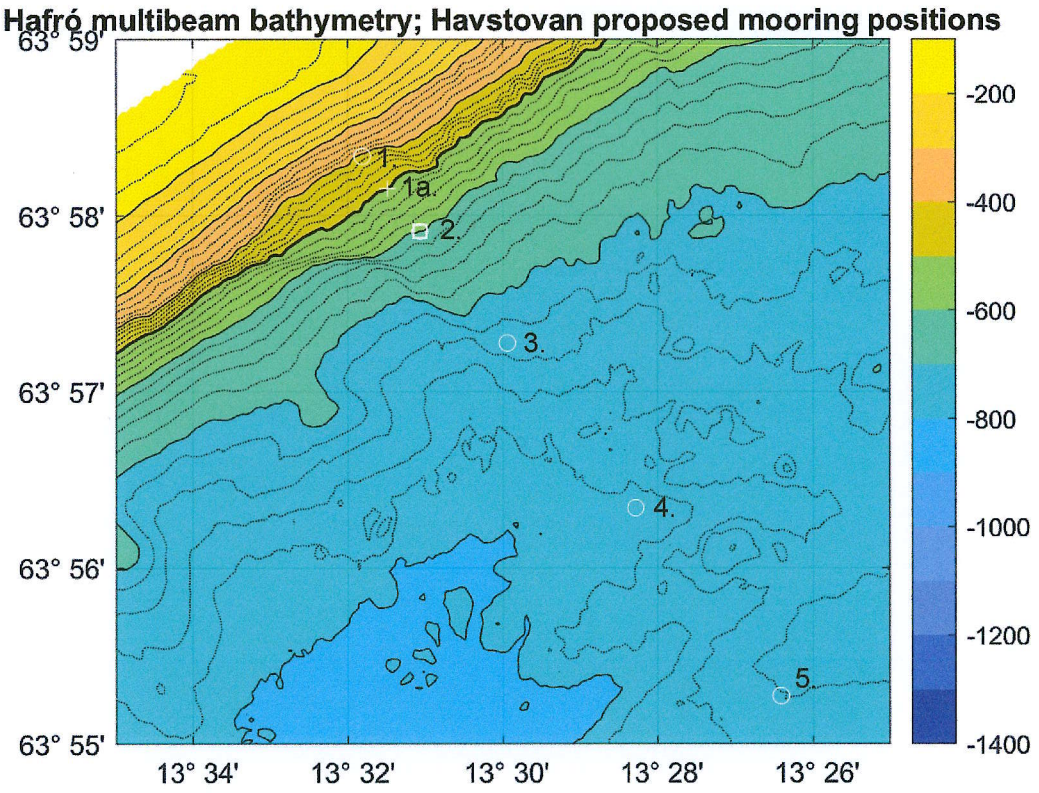

Chart 2. The chart, which is provided by Andreas Macrander (Hafrannsóknarstofnun), shows high resolution bathymetry at the planned mooring locations. The numbers refer to the positions given in part 4. above.